

CLAIMS

What is claimed is:

1. An apparatus for the control of the temperature of a medium within a space by utilizing a temperature-modifying device, said apparatus comprising:

a controller connected for controlling a thermal output of said temperature-modifying device to achieve said desired temperature, and

an interface connected for providing information to and from said controller, said interface having at least one substantially linearly moveable member with at least a position for setting a program within said programmable controller and setting said programmable controller to control said temperature-modifying device.

2. The apparatus of Claim 1, wherein said interface further includes a position for setting a clock for use with said program.

3. The apparatus of Claim 1, wherein said interface comprises separate positions for setting a plurality of programs.

4. The apparatus of Claim 3, wherein said plurality of programs include one or more selected from the group consisting of a weekday program, a weekend program, and a daily program.

5. The apparatus of Claim 1, wherein said controller further comprises an implementing circuit, a temperature comparator, and a memory.
6. The apparatus of Claim 5, wherein said implementing circuit, said temperature comparator, and said memory incorporate an integrated circuit having a microprocessor and a programmable memory chip.
7. The apparatus of Claim 1, wherein said interface further comprises a display.
8. The apparatus of Claim 4, wherein said display incorporates an LCD.
9. The apparatus of Claim 1, wherein said temperature-modifying device is one or more selected from the group consisting of an HVAC system, a geothermal system, a gas furnace, a natural gas furnace, an electric furnace, a gas water heater, and an electric water heater.
10. An apparatus for the control of the temperature of a medium within a space by utilizing a temperature-modifying device, said apparatus comprising:
 - a logic circuit for comparing an existing temperature of said medium to a temperature desired to be achieved of said medium, and controlling a thermal output of said temperature-modifying device to achieve said desired temperature of said medium;
 - a memory for storing information received from said logic circuit;

an interface connected for inputting information to said logic circuit, said interface including at least one substantially linearly moveable member having at least a position for setting a program within said logic circuit, setting a clock for use with said program within said logic circuit, and setting said logic circuit to control said temperature-modifying device; and a display for displaying information processed by said logic circuit.

11. The apparatus of Claim 10, wherein said interface further includes a position for setting a clock for use with said program.

12. The apparatus of Claim 10, wherein said interface comprises separate positions for setting a plurality of programs.

13. The apparatus of Claim 12, wherein said plurality of programs include one or more selected from the group consisting of a weekday program, a weekend program, and a daily program.

14. The apparatus of Claim 10, wherein said logic circuit comprises a microprocessor.

15. The apparatus of Claim 10, wherein said display incorporates an LCD.

16. The apparatus of Claim 10, wherein said temperature-modifying device is one or more selected from the group consisting of an HVAC system, a geothermal system, a gas

furnace, a natural gas furnace, an electric furnace, a gas water heater, and an electric water heater.

17. A thermostat for the control of the temperature of a medium within a space by utilizing a temperature-modifying device comprising:

a sensor for sensing ambient temperature;

a microprocessor for receiving said ambient temperature from said sensor and comparing said ambient temperature to a set point temperature, said microprocessor having an output for sending an output signal to said temperature-modifying device based upon said comparison;

an interface connected for inputting information to said microprocessor, said interface including a substantially linearly moveable member having at least a position for setting a plurality of programs within said microprocessor, and setting said microprocessor to control said temperature-modifying device; and

a display for displaying information received from microprocessor.

18. The thermostat of Claim 17, wherein said plurality of programs include one or more selected from the group consisting of a weekday program, a weekend program, and a daily program.

19. The thermostat of Claim 17, wherein said temperature-modifying device is one or more selected of HVAC system, a geothermal thermal system, a gas furnace, a natural gas furnace, an electric furnace, a gas water heater, and an electric water heater.
